



TC 1700

IN THE US PATENT AND TRADEMARK OFFICE

Applicants

: George D. Chandley et al.

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For

: TITANIUM ALUMINIDE MATERIAL

RESISTANT TO MOLTEN ALUMINUM

Serial No. : 09/740 708

Group: 1742

Filed

: Dec. 19, 2000

Ex.: Combs

Confirmation No. 5022

Assistant Commissioner for Patents Washington, D.C. 20231

## RESPONSE TO OFFICE ACTION

Dear Sir:

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Please amend the above-identified patent application as follows:

IN THE CLAIMS

Substitute claims 1 and 16 as follows for pending claims of like

1. (Amended) A method of increasing the service life of a titanium aluminide alloy in contact with a molten material comprising aluminum, comprising including in the titanium aluminide alloy a rare earth element in an effective amount to prolong resistance to attack of the alloy by the molten material and contacting said allow with said molten material.

16.(Amended) A method of prolongi/ng resistance of a titanium aluminide alloy to a molten material comprising aluminum, comprising contacting the alloy / for a time with said molten material, removing the alloy from contact with said molten material, heating the alloy in /an oxygen-bearing atmosphere at elevated superambient temperaturé to form a surface oxide thereon, and re-contacting the alloy having the surface film thereon with said molten material.